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ABSTRACT

State of the art access to the literature of women's history is reviewed in this paper, including the issues of publication, bibliographic control, indexing services, and electronic databases. The problems of intellectual access to women's history in online databases are discussed in terms of: (1) characteristics of the subject itself; (2) problems related to the nature of electronic information storage and retrieval and to the production of the online databases; and (3) thesauri and vocabulary aids. (DB)

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INFORMATION RETRIEVAL

IN

WOMEN'S HISTORY

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INFORMATION RETRIEVAL IN WOMEN'S HISTORY

OUTLINE

I. INTRODUCTION 3

Women's history as a new field of research 3
Definitions 4

II. SOURCES OF INFORMATION & BIBLIOGRAPHIC CONTROL 5

Publication of women's history 5
Bibliographic control of publications 6
Where women's history is indexed 10
Access via electronic databases 16
Types of electronic databases
Prospects for primary sources
Online and CD-ROM bibliographic databases for women's history

III. INTELLECTUAL ACCESS TO THE LITERATURE OF WOMEN'S HISTORY IN ONLINE DATABASES (VOCABULARY AND INDEXING) 20

Characteristics related to the subject itself 20
Women vs. feminism
Sexist and stereotyped language
Women as participants vs. women as the subject
Identifying feminist viewpoints

Issues related to electronic databases 24
Lack of assignment of a women index term 24
errors and poor indexing
individual, named women
groups of women
related topics
Lack of specificity & failure to differentiate vs excessive number of terms & failure to generalize 29
Historical period index terms 31
Databases not updated when new index terms added 33
Switching vocabularies from database to database 33

Developments in vocabulary aids 33
Aids: *On Equal Terms, A Women's Thesaurus, Women in LC's Terms* 33
Other attempts at thesauri 36

IV. CONCLUSION 37

NOTES 40

INFORMATION RETRIEVAL IN WOMEN'S HISTORY

I. INTRODUCTION

This review of the state of the art of access to the literature of women's history, including publication, bibliographic control, electronic databases, and intellectual access, concentrates on issues in electronic information retrieval, vocabulary, and indexing. Women's history shares some of the characteristics of any new field of specialization in history: initial difficulty in getting published, problems of identity and definition, and the need to sort out the anecdotal or curious from substantive contributions to historical understanding. In comparison with other new and interdisciplinary fields such as social history, family history, public history, and history of science, women's history ostensibly has a more definable subject for information retrieval; however, that specificity of identification is illusory.

When online bibliographic databases in the humanities and social sciences were first available in the mid 1970s, retrieval of topics concerning women posed considerable problems. By the early 1980s, the great increase in both the amount of material about women and the number of index terms used in current bibliographies to describe that material seemed to indicate that access to women's history was no longer an issue. Then three stimuli provoked the present re-examination: 1) When I began some research on French and Spanish women of the Enlightenment I noticed the difficulties in finding existing scholarship that would be encountered by anyone who was not already

experienced in women's history or who was not a specialist in French and Spanish history. 2) An extensive analysis of women's studies material in online databases in the humanities showed that the great increase in index terms for women and related subjects had not solved the problems of subject access. That is, access was not necessarily guaranteed by increasing the number of index terms used.[1] 3) The third stimuli was my favorite bedtime reading, *Historical Abstracts*--some people read romances or mysteries, I read *Historical Abstracts*--and the continually vexing problem of inadequate and inaccurate assignment of index terms by major bibliographical services.

The purpose of reviewing these issues is two fold: 1) to alert historians who use bibliographic databases--or should be using them--and information analysts who assist historians, to the limitations and problems of electronic information retrieval today; 2) to try, yet once again, to encourage producers of bibliographies and indexes to do something about the problems that can be solved.

I address these issues from the practical point of view of the teacher and research historian, not from the point of view of information or computer science. My remarks concern what we historians have to work with today, not about theories of indexing, database design, or knowledge engineering. The historical profession has not yet been willing to finance the ***basic*** bibliographical services it needs, much less some ideal database design.[2]

Definitions

By electronic databases I mean several kinds of reference tools stored by electronic means and used with a computer, but especially online ones. The most familiar and most important ones are online bibliographies, both library catalogs in electronic form and abstracts and indexes in an information retrieval system, e.g., ***Historical Abstracts*** in the Dialog Information

Retrieval Service. Electronic databases may be bibliographic databases, reference databases like encyclopedias, and textual databases like the *Thesaurus Linguae Graecae*[3] they now include ones on CD-ROM (compact disk--read-only memory) that perform very similarly to online systems.

A bibliographic entry or simply entry is the individual bibliographic record, sometimes called a citation or a listing, for one published work. The bibliographic entry includes the standard data about author, title, publisher, date, etc., and any annotation or abstract. Online bibliographic entries or records also usually show the indexing and classification headings that have been assigned to the entry. An online bibliographic database is made up of bibliographic entries or records.

In this paper I use the words "index term" to refer to all varieties of words and phrases that are used as the headings in subject indexes, variously called index terms, subject headings, descriptors, and identifiers.

Free-text searching means having the computer search every substantive word of every part of the bibliographic entry that has informative text, which is usually the title, annotation or abstract, and index terms. (It may, but usually does not, include the author, depending on the design of the search system.) Free-text searching is contrasted with searching only designated fields of data, searching the data only in the order in which it appears in the field, and using only selected words, codes or formulas.

II. SOURCES OF INFORMATION & BIBLIOGRAPHIC CONTROL

Publication

The characteristics of publication and bibliographic control of women's history are similar to other new fields of study or of specialization within an established discipline. There is a lag time between the beginnings of

research in a new area and the appearance of reports of it in mainstrear history journals and in books published by major scholarly presses. The intensity of the ideological struggle for women's studies concomitant with the political struggles of the women's movement have made it especially difficult to sort out legitimate complaints of discrimination and bias against publishing women's history from genuine questions of the quality of the research and writing. A 1978 survey of 200 journals showed that women's history articles were generally not published in "major" journals although it was being published in others; material on American women appeared especially in local history journals.[4] Ten years later it was no longer true that women's history did not appear in "major" journals. In 1984 and again in 1990, the venerable ***American Historical Review*** had entire issues devoted to the theme of women's history and has continued to publish articles on specific topics in women's history and on the theory and historiography of gender studies. The leading English-language journal in French history, ***French Historical Studies***, began publishing articles on women's history about 1975 and had a special issue on "Women and Gender in French History" in 1989.[5] A perusal of publishers' catalogs shows that women's studies and women's history have become something of a fad.

Bibliographic Control

The problems of bibliographic control, too, are not unique to women's history. All researchers in a new or highly specialized field of history experience some or all of these problems. Not only is research published in out-of-the-way places, but finding out about the publications depends on a number of irregular and poorly controlled sources of information. Information about new books as listed in publishers' catalogs is received depending on whose mailing lists one happens to be on, and on the publishers' schedules for

distributing catalogs and announcements. Most of the titles found in publishers' announcements eventually do get into the bibliographic systems of current bibliographies like ***Books in Print*** and national bibliographies like the Library of Congress's catalogs or MARC tapes and the ***British National Bibliography***; books from non-U.S. publishers, however, take longer to get into the U.S. systems or may not make it al all; similarly, the route of U.S. books into the French or Spanish systems is more precarious than for the publications of the home country.

A second uncontrolled source of information is booksellers' catalogs, which are especially useful for items from smaller publishers, for private printings, and for foreign and older publications. For example, catalogs from Spanish booksellers may provide the first or even the only listing of items such as the papers from the conferences on interdisciplinary research on women sponsored by the Autonomous University of Madrid. Sometimes, but not always, these catalogs list the contents of monographs and collections so one can discover a chapter or an article in an otherwise not-so-obvious work. Frequently the bookseller does not give the full bibliographic data because the purpose of the catalog is for the bookseller to procure orders for books, not to list data to facilitate individuals' obtaining the book from the publisher or through interlibrary loan. These catalogs are received by scholars whose interests have somewhere along the way caused their names to be added to the mailing lists and by book selectors at university libraries (bibliographers or collection development librarians). Both these groups--scholars and librarians--are a select audience. Through them some rather obscure or poorly distributed books find their way into university library catalogs and then into national bibliographic networks, a slow and less than foolproof system.

A related source of bibliographic information is the acquisition lists of specialized libraries or other institutions. For example, the University of Wisconsin System Women's Studies Librarian issues lists of "New Reference Works in Women's Studies" and its own "Materials in Stock"; The Women's Institute (Instituto de la Mujer, Centro de Documentación) in Madrid issues a bulletin of new book acquisitions; the newly organized International Federation for Research in Women's History distributed a list of publications received as of December 1989; local historical societies prepare lists of new library and archival acquisitions; and university library bibliographers often send lists of books received of interest to faculty members in selected departments. These lists are occasionally the first or even the only notices of a publication; they include books from small publishers, pamphlets, manuscripts, and other unusual items or ephemera. The disadvantages are that the lists are selected, but not selected on any consistent, defined basis; they are haphazard lists based on items received.

All three of these types of lists, publishers' catalogs, booksellers catalogs, and acquisition lists, although they are sometimes the first source of information, are primitive and unreliable methods of finding bibliographic information. They have no indexing and only rudimentary, simple classification or section headings; and, of course, the time lag is unpredictable and may be considerable.

A step down from these catalogs and lists is the bibliography from a colleague. On the one hand such a list may have been selected by a fellow scholar for relevancy and quality and may include items whose relevancy had been missed by regular bibliographic services because the subject of interest was hidden in the midst of a larger work. On the other hand, such lists are especially prone to errors in the citation data; they frequently have no

subject divisions, no annotations, and, of course, no indexing; their lack of quality control results in so-called bibliographies are merely indiscriminate listings. In fact, one of the most disappointing bibliographies I've seen was one from a historian whose research and writings are outstanding but whose list of women's history publications was an insult to the word "bibliography."

A fifth source of information is newsletters of special interest groups, associations of historians with specialized interests, e.g., the Conference Group on Women's History, the Western European Specialists section and the Women's Studies section of the American Library Association, and the Association for the Bibliography of History. Such newsletters sometimes report on locally produced guides to collections, research in progress, unpublished studies, and the acquisition of materials by archives and special libraries. This information is rarely, if ever, indexed in a bibliographic system.

Another uncontrolled, that is, not indexed, information source is conference programs, both for annual meetings of history associations and specially organized thematic conferences. For example, the Dartmouth College meeting on "The Revolutionary Moment" included two presentations related to women in the French Revolution. The typical historian scans conference programs for papers of interest that will be presented at a meeting, but so far no bibliographic service tries to capture these papers. Such papers may be informally and individually available from the author; some may be deposited with a library or the ERIC system; they may be published in proceedings of the meeting, in which case there is some chance that they will get into the bibliographic network.

Access through indexing is very scanty or lacking altogether for old newspapers, many government publications, and popular magazines.

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Retrospective or "one-time" bibliographies and what I call the "footnote network" record and disseminate the news of some of these elusive items to a select and limited number of readers. Clearly, many historians' favorite method of bibliographic searching is to depend on the efforts of a previous researcher to have located items on the topic of interest and to have cited these items in footnotes. It is true that the footnote method captures some otherwise unknown publications and it does provide an indication of the relevancy of a citation. In fact, there is an entire bibliographic system based on the principle that footnote citations lead to previously published, directly relevant documents (the Institute for Scientific Information's citation indexes). But the journey of a citation through the footnote network is slow and haphazard. We should be able to do better in this electronic age.

Our next question is where *is* women's history indexed, what are the major bibliographic indexing systems for women's history, and which ones are available in electronic form. Electronic storage and retrieval of bibliographic data should result in better (i.e., faster, more comprehensive, and more accurate) access to primary sources and secondary literature. Electronic databases and retrieval systems promise immediate access to the bibliographic tools once they are compiled, once the data is gathered and put into the system. But there's the rub--actually several "rubs": first, the information must be gathered from regular publishing channels and the irregular or poorly controlled ones just reviewed; second, intensive indexing and appropriate vocabulary has to be employed to effectively retrieve desired references; and third, there has to be efficient access to the documents or data themselves.

Where Women's History Is Indexed

In assessing the indexing or lack of indexing of the journal literature

we notice that the problems differ among some categories of journals. Mainstream, well-known journals like the ***American Historical Review***, ***Journal of American History***, ***French Historical Studies***, and their British, French, and German counterparts, are widely indexed. Less general, less well-known but still relatively mainstream history and area studies journals like ***Proceedings of the Western Society for French History***, ***Dix-Septième Siècle***, or ***Iberian Studies*** are also widely indexed.

Journals in the narrower areas of women's history and feminist and women's studies are less certain of being indexed, but the picture of their indexing is not as bleak as that painted in the 1986 claim that "coverage of women's studies journals and feminist periodicals is . . . non-existent in most traditional indexing and abstracting services." A recent check of a list of 17 titles in feminist and women's studies, women's history, and women in literature showed that the ***Historical Abstracts-America: History and Life*** services index 9 of the 17; the ***MLA International Bibliography*** (by the Modern Language Association) indexes 7; and ***Arts & Humanities Citation Index*** indexes 6.[6]

If a journal title includes the word "history" and it is not merely a newsletter of small local history magazine, HA-AHL will index it. E.g., the new ***Journal of Women's History*** published by Indiana University Press will have no difficulty getting accepted. It is already being indexed by HA-AHL and the American Historical Association's ***Recently Published Articles*** (RPA) and ***Writings on American History*** (WAH). It is too soon to know whether it will be included in the ***International Bibliography of the Historical Sciences***. Likewise, MLA will index any scholarly journal on literature, and the art abstracts will index titles in art. Strictly feminist and women's studies titles have to prove that their articles are of interest to the scholarly and

professional community served by the major discipline-oriented indexes. The journal ***Signs***, published by the University of Chicago Press, was heavily promoted and the pre-publication announcements indicated it would be a serious journal with some well-established authors and titles that appeared to be solid work, so ***Signs*** was immediately added to HA-AHL and other indexes. To be added to the limited list of journals indexed by the Wilson services (***Humanities Index*** and ***Social Sciences Index***), a journal must be voted in by subscribers. Admittance to the citation indexes is based on the journal's popularity as evidenced in the citations to the journal in other publications and editors' evaluation of its potential contribution.

Presumably all the feminist and women's studies journals would be indexed by the indexes in that field, but that is not the case. ***Women's Studies Abstracts*** indexes most (13) but not all of the 17 titles I checked. It does, however, pick up new titles more quickly than other indexes and it indexes several journals not indexed by any of the seven major indexes most relevant to history (e.g., ***Differences: A Journal of Feminist Cultural Studies***, ***Feminist Issues***, ***Feminist Teacher***, and ***Women's Review of Books***).

A third category of journals is a group comprising new, highly-specialized, obscure, low-circulation, and local history journals that are infrequently indexed. Women's history published in this type of journal is easily lost because the journals are not indexed. It takes a special effort on the part of the publisher to get a new journal into the bibliographic systems. ***Signs*** had no difficulty being accepted but ones from less established and powerful publishers, like the ***Proceedings of the Western Society for French History***, are less likely to make it . An awkward or misleading title is an additional handicap for the articles published in a relatively new and specialized journal. For example, the journal ***Dieciocho:***

Hispanic Enlightenment Aesthetics and Literary Theory may be attractive to the MLA, but HA and historians will ignore it, yet it publishes work important to 18th-century women's history.

Perhaps the worst problem of poor access to research in a new or highly specialized branch of history due to lack of indexing is that of collections. These include all kinds of multi-author publications, such as festschriften; anthologies of articles on a particular theme, which are often original essays but also sometimes reprints; conference proceedings; and papers from seminars, workshops, and the like. There are several facets to the inaccessibility of articles published in collections. The collection title (book title) usually cannot convey the entire subject of its contents. A collection titled The Inquisition in Early Modern Europe may not catch the eye of the scholar interested in women's history yet contain essays on particular groups of women. The diligent searcher for women's history must examine both titles on the geographic and chronologic focus of interest and titles in women's studies; for example, for literature about 18th-century Spanish women one must check collections on Spanish history, 18th-century Europe, and women's history. To the understandable, if unfortunate, problem of the inability of a collection title to express all the subjects of its contents is added the inexplicable use of uninformative and misleading titles by authors and editors.

Another facet of the lack of access to research published in collections is that libraries usually catalog collections only as a single title and do not index the individual essays. Similarly, bibliographic services, when they do include collections, frequently do not index the individual items in the collection. For a few years, HA-AHL made an effort to include collections and

did index the individual essays, but this coverage was dropped in 1982 in a decision based on economics (false economy) rather than on bibliographic needs of the profession. MLA regularly indexes collections at the individual level, but volumes beginning 1981 do not include a list of the works indexed! The Wilson Company's ***Essay and General Literature Index*** indexes the contents of about 300 collections per year, which include the most prominent ones in history and women's studies, but not all the ones of interest and especially not non-U.S. ones. The ***Social Sciences Citation Index*** apparently ceased covering collections in 1983, although it and ***Arts and Humanities Citation Index***, of course, include citations to articles in collections when they occur in notes in the journal articles that are indexed. Published proceedings of societies and associations are indexed in the Institute of Scientific Information's ***Index to Social Science and Humanities Proceedings.***

The paucity of indexing collections by the major bibliographic services is accompanied by the randomness and irregularity of selection of titles for indexing and the difficulty of knowing which titles have been indexed. Retrospective (one-time) bibliographies and the "footnote network" may eventually pick up some of the articles in collections, but the time lag is significant and there is no guarantee that all the articles will ever get selected for inclusion. Publishers' catalogs, booksellers' catalogs, and some journals may list the contents of collections, but here again, titles included are selected on non-regularized bases; contents are sometimes given, sometimes not; and no one indexes these lists. There is no consistent and reliable indexing of collections of secondary literature on women's history, women's studies, or, indeed, on any field of history.

In concluding these remarks on where women's history is indexed, mention

is made of the most useful bibliographies and indexes not available in electronic form: ***Women's Studies Abstracts*** indexes a small list of journals and other publications about women in general. It is important for access to journals that occasionally contain history material, like ***Women's Studies Quarterly*** (Feminist Press, CUNY) and ***Feminist Teacher***. It is not available in any electronic form and is constantly struggling to continue publishing. It even has a competitor--a blatant example of the duplication of effort that makes it even more difficult for bibliographic services to survive and improve--***Studies on Women Abstracts***, published in Britain. A more ambitious index is the combined catalog and current bibliography, ***BiblioFem***, based on the joint catalog of the Fawcett Library (the largest source of information on women in the United Kingdom) and the Equal Employment Opportunities Commission, plus entries for books on women from the ***British National Bibliography*** and the Library of Congress records. It covers all kinds of information by and about women and is useful for modern European women's history. It was published in microfiche from 1978 but ceased in 1986.[7]

Among the general current bibliographies in history are the American Historical Association's ***Recently Published Articles*** (RPA), now defunct, and the ***International Bibliography of Historical Sciences***. RPA has functioned well as a current awareness tool but has not been able to adapt to the rigors of a modern, comprehensive, indexed bibliography and has ceased publication. Its sibling, ***Writings on American History*** may survive but is not yet available in electronic form. The ***International Bibliography of Historical Sciences*** is highly selective, has a three-year time lag, has no subject indexing, and is not available electronically. Bibliographies of national history, like ***Writings on American History***, ***Bibliographie Annuelle de l'Histoire de France***, ***Jahresberichte für deutsche Geschichte***, and ***Writings on British History***,

contain some unique items but are not online."

Access via electronic databases

There are several kinds of electronic databases of interest to the historian including data archives like the files of the Inter-university Consortium for Political and Social Research and other numeric databases; databases of texts like the ***Thesaurus Linguae Graecae*** (TLG) and ARTFL (French texts) available for use at their home sites, via tapes or disks distributed upon request, or through quasi-online means.[9]

The majority of electronic databases of interest to historians in general are bibliographic databases, that is, bibliographies, indexes, abstracts, and library catalogs; and they are mostly online or available in the quasi-online medium of CD-ROM (compact disk--read only memory). "Online" means that a person has instantaneous, interactive access to the data stored in a computer, frequently, but not always, at a remote location; access may be via another computer or simply an electronic data terminal (a "dumb" terminal) over directly connected cables, telephone lines, satellite transmission, or a combination of those means. CD-ROM databases are static databases, often "canned" versions of online ones. The database and the software to use it are shipped to the use-site (a library or office) where the database is accessed using a personal computer. CD-ROMs are searched very similarly to online databases, but usually are not as current as online ones and often do not have as sophisticated and as powerful searching systems. They are, however, rapidly increasing in popularity and in sophistication of searching systems.

Although the concern here is primarily with bibliographic databases, there are prospects for electronic access to primary sources. ARTFL is moving toward a more truly online operation, as is the ***Medieval and Early Modern Data Bank*** of currencies and other numeric data, which is now being tested on

diskettes for eventual loading as an online RLIN database; and the TLG database is available on CD-ROM.

At this point microform is the medium of choice for the "publication" or distribution of primary sources in history. Microform collections in women's history include ***The Social History of Women from 1400 . . .*** (microfilm, Research Publications), ***Les Femmes: Rare Works from . . . the Bibliothèque Nationale*** (microfiche, Norman Ross), ***Fawcett Library on Women's Studies*** (microfiche, IDC), and ***The Gerritsen Collection of Women's History 1543-1945*** (microfiche, Microfilming Corporation of America). Such collections are accompanied by printed guides or indexes, but what is needed is online access to the list of contents, if not to the full text of the materials themselves. Fortunately a few libraries are cataloging the individual titles in these collections and sharing that information through their own local online catalogs and online catalog networks like OCLC and RLIN. It is reported, for example, that the women's studies holdings of the University of Waterloo and Wilfrid Laurier University (Canada) are searchable in their public catalogs, including individual entries for the works in the microform sets ***History of Women*** (Schlesinger and Sophia Smith Libraries) and ***Les Femmes*** (Bibliothèque Nationale).[10] Our best and most immediate hope is probably to get guides and indexes into online library catalogs and other electronic databases rather than the primary material itself. In fact, this has begun with indexes like Readex's ***Electronic Index to United Nations Documents and Publications***.

In addition to online library catalogs, databases that index newspapers, magazines, and other contemporary publications will be of use to historians of the recent era of the women's movement and to future historians of women in the last quarter of the twentieth century. The ***Catalyst Resources for Women Database***, available online through BRS information retrieval system, is a

bibliographic database that indexes contemporary materials, including ephemeral ones, about women in the workforce, careers, affirmative action, minority women, corporate practices, and the like. Thus it will serve as an index to some of the materials used as primary sources by future researchers. (The ***BiblioFem*** index, if it had been in electronic form, would have served the same purpose.)

Another possibility for access to both secondary literature and primary material, now that most writing and bibliographic work is done on at least a personal computer, is that data banks, retrospective bibliographies, and guides to historical topics can be made available in electronic form. For example, the ***Women of Color and Southern Women*** database, online at Memphis State University, could be distributed on CD-ROM or by an online information retrieval service like Dialog or RLIN. And the three-volume guide to primary and secondary literature about ***Women in English Social History, 1800-1914*** might be converted to an electronic database and distributed, along with other guides and bibliographies by an enterprising information retrieval service.[11]

The bibliographic databases most relevant to women's history currently available in electronic form online, on CD-ROM, or both, are of two groups: 1) the online bibliographic databases distributed by information retrieval services like Dialog, BRS, and Telesystèmes-Questel; and 2) online or CD-ROM library catalogs. In the first group are ABC-Clio's ***Historical Abstracts*** and ***America: History and Life*** (HA-AHL); the Institute of Scientific Information's ***Arts and Humanities Citation Index*** (AHCI) and ***Social Sciences Citation Index*** (SSCI); the H. W. Wilson Company's ***Humanities Index*** and ***Social Sciences Index***; and the French Centre National de la Recherche Scientifique (CNRS), Institut de l'Information Scientifique et Technique's collection of databases called

FRANCIS. In the second group are the online library catalogs which include the catalog networks OCLC and RLIN, local and regional online public catalogs like the University of California's Melvyl catalog, and a number of CD-ROM catalogs and national bibliographies such as the ***British Library General Catalogue pre 1975***, the ***Deutsche Bibliographie on CD-ROM***, and the ***Bibliographie National Française depuis 1975 sur CD-ROM***.

A quick review of the online database situation for women's history shows the same basic characteristics as earlier. The advantages remain the same: faster and more comprehensive searching than is possible by hand in printed indexes; use of Boolean logic to limit searches to more precise requirements; and the interactive nature of online searching that facilitates trial and error, fine tuning a search, and discovering new lines of investigation.[12]

The initial difficulties and limitations are basically the same, too: the databases lack chronologic depth, although because publication on women's history has burgeoned since the advent of online databases, this is less a problem than for some more traditional branches of history; compilation of databases in history and other humanities continues to be slow; the producer of HA-AHL has largely ignored error correction, requested improvements, and even prompt transmittal of tapes to Dialog; quality control of indexing in the humanities databases, which appears to be less rigorous than in the sciences and technology, is a noticeable and vexing problem.[13]

What has changed is the increasing number of resources available in electronic form, especially online bibliographic databases. There has even been improvement in the currency of some databases, namely MLA. A promising development, if it can be maintained, is the ***Research in Progress Database*** on RLIN. In addition there are reference works like ***Canadian Women of Note***,

Computerized at York University, the *Oxford English Dictionary* on CD-ROM, and the Bible and some general encyclopedias on Dialog and other information retrieval systems. The provision of the full text of articles through online databases is increasing rapidly in the sciences, business fields, and the popular press; perhaps it will one day reach the humanities. The other area of development, vocabulary and indexing, is less clear and less quantifiable.

III. INTELLECTUAL ACCESS (VOCABULARY & INDEXING)

Observations on the intellectual access to the literature of women's history via online databases are in three sections: 1) the characteristics of information retrieval related to the subject of women's history; 2) issues or problems related to the online databases or to the nature of electronic storage and retrieval; and 3) developments in vocabulary aids.

Among the characteristics related to the subject of women's history is the lack of distinction in much of the literature as well as indexing schemes between the general subject of women and the more specific subject of feminism-feminist. The latter words have been used so indiscriminately by authors that it is not possible to achieve accurate indexing. First, all indexers and database producers would have to agree on a common definition of the terms, which is highly unlikely. Second, indexers would have to disregard the author's words and consistently apply the agreed upon definition of the terms, which would be time-consuming and error prone. Some indexing services do try to make the distinction, but none are completely successful. *Philosopher's Index*, which one would expect to be more fastidious about word meanings and ideological labels than some other indexes, is not consistent. Searches for marxism-feminism and for women's liberation revealed inconsistencies in the assignment of the index terms feminism and women.[14]

Another fundamental issue in indexing or cataloging material about women is that the terminology is frequently sexist or stereotyped, that it treats women and some other groups (ethnic ones) as abnormal or peculiar; e.g., the phrase women as lawyers, instead of women lawyers, implies that it is not the norm for women to be lawyers; furthermore, even the heading "women lawyers" instead of simply "lawyers" or "lawyers, men" and "lawyers, women" excludes women from the general group of lawyers. The word wives is sometimes used when the general term spouse is needed for non-prejudicial expression, or wives are singled out when both wives and husbands should be listed ("runaway wives, husbands, etc." instead of just "wives, runaway"). The phrases "blacks as criminals," "Gurkhas as soldiers," and "women in Islam" connote peculiarity; only selected classes of persons are being singled out for such treatment; other criminals, soldiers, and Islamic theological works are identified by the headings used for all criminals, all soldiers, and all theological works, plus the appropriate heading for nationality or divisions of theology.[15]

Librarians and women's studies scholars have led the movement to reform the ***Library of Congress Subject Heading List*** and other indexing schemes along with the practices of assigning those index terms. The matter is not, however, a cut and dried case for improvement of access. There is a conflict between the need for a gender-free, non-sexist terminology and the need for sex-specific terms to locate material about women, especially older material that uses earlier terminology. The object of index reformers is, of course, not to obscure the identification of women-related material but to index it without using language that denigrates, subordinates, or otherwise projects bias against women. In practice, gender-neutral indexing does not always

accomplish that objective. Besides the fact that indexers cannot always make distinctions accurately and consistently (is spouse or wife appropriate here?), the anachronistic use of contemporary terminology can actually hamper the retrieval of material on women that contains older, less sensitive, language.

The objections to sexist and stereotyped index terms, especially the problems with phrasing, are more important in printed indexes and catalogs than in online ones. Online searching can ignore and overcome many of the situations seen as problems by vocabulary reformers. In most online searching systems it makes no difference in a search for women bankers whether the index term is "women as bankers," "women bankers," or "bankers--women."

A frequent difficulty in indexing groups of people, not unique to women's history, is the inability to distinguish between people as participants in a medium and people as the objects portrayed in a medium, e.g., actresses or directors versus the depiction of women in films; women in advertising jobs versus the portrayal of women in ads; women artists versus paintings of women; or chicana novelists versus novels about chicanas.[16] This confusion is more problematical in free-text searching and in indexes that use uncontrolled or natural language keywords than in databases that have a controlled vocabulary. Online searching tends to rely more on the post-coordination of single keywords (e.g., women + historians) than on controlled vocabularies or pre-coordinated terms and phrases (e.g., women-historians), but the case of participants versus portrayal is one instance where pre-coordinated or controlled-vocabulary phrases are needed. In some controlled-vocabulary indexes, namely ***Library of Congress Subject Headings List*** (LCSH), if one is thoroughly familiar with the headings (or experiments to learn

them', there are some tricks that can be used. For example, to distinguish women-of-color authors from documents about women of color, one can search for the combination of "women authors" AND "minority authors."[17] To determine if there are subject headings that would work in a particular database, one searches for the phrase "women of color," prints out some entries, and checks the index terms for ones that can be used to locate additional entries. In the ***MLA International Bibliography*** (MLA) this procedure locates the terms "minority women writers," "minority women poets," and "black women writers"; also, one could combine a search for specific types of women authors (women novelists, women poets, feminist writers, etc.) AND particular national literatures like Latin American literature or French Caribbean literature. In AHL the same technique reveals that a search could be constructed using three concepts: 1) women AND 2) minority, minorities, nonwhite, third-world, blacks, etc., AND 3) literary criticism, authors, novelists, poets, artists, etc. Still, this is a situation in which post-coordination of index terms, especially free-text keywords, does not produce reliable results.

There are, of course, more sophisticated indexing schemes that better handle actors and relationships through the use of facets or operators, but my comments are about the online databases now in use.

A fourth characteristic of the subject matter of women's history in online databases is the difficulty of identifying particular viewpoints, in this case a feminist perspective. The identification of feminist viewpoints can be compared to the problem of searching for conservative or left-wing political views toward a subject, revisionist views of a certain historical event, or pro and con views of an issue like tax reform, abortion, the "homeless," or aid to the Contras. The political or ideological point of view

is frequently not clear from the title or indexing of a document. MLA provides explicit access to the viewpoint through use of the index terms "feminist approach," "feminist literary theory," and "feminist criticism." ***Religion Index*** has the terms "feminist interpretation" and "feminist theology," but free-text searching for "feminist" in proximity to the words "approach," "perspective," "criticism," "theory," "politics," "art," "theater," "philosophy," etc. is a more effective strategy. The same free-text strategy would have to be used in HA and AHL.

Issues Related to Electronic Databases

Issues in the retrieval of women's history related to the online databases begin with the lack of sufficient data: the lack of informative titles and the lack of assignment of adequate and accurate index terms. The issue of uninformative titles is an old one, but one that persists and has serious consequences in some online databases. In the field of women's history authors have generally been careful to put into their titles a word denoting women, but there are still problems. In analyzing bibliographic entries on the topic of prostitutes and prostitution I discovered a surprising number of titles with euphemisms, metaphors, slang, and related terms such as fallen women, dishonored women, women of pleasure, moral deviation, redlight, hothouses, purchased love, artisans of the sidewalk, daughters of pleasure, white slave, and streetwalkers. A number of the entries in this search could not have been retrieved using the words for prostitution, even with free-text searching of the title, abstract, and index terms.

A more subtle and less easily solved aspect of this problem of uninformative titles is the case of the work that does not directly focus on women but includes women's issues; here the title cannot always cover that

additional issue. For example, the title of an article on two 18th-century epistolary novels is primarily about literary technique; the title does not reveal that the novels are by women authors, that they are about unmarried young women, or that they include feminist commentary on society.

Beyond the question of representing women's issues, there is the exasperating practice of not giving the geographical and chronological context of a work when it does have definite limits. Time and again I have had to track down titles like "18th-century women," "women, marriage, and politics," or "women and poverty," only to discover that the book is actually about only American women, only British women *novelists*, or only the 20th century. Even when dates like 1860-1914 are added to a title like "women, marriage, and politics," its exclusively British context is still hidden.

In the case of the prostitution search there is a triple error. The first line of responsibility for providing meaningful and adequate information in the title is the author's. Second is the abstracter's responsibility to give a summary or description of the work that is faithful to the content, including the author's views and conclusions, but also faithful to the principle of assisting readers to locate relevant works. When an abstract merely repeats cutesy, metaphorical, or other non-explicit words from the title and does not include more informative terminology, a second error is committed. The final and heaviest responsibility for making information accessible lies with the editor-indexer for the database. It is that person's job to catch errors and inadequacies that slipped through the author and abstracter and to prepare the information for dissemination and retrieval. In the prostitution example search at least two articles were missed by the online search of AHL because the abstracter repeated the title words "fallen women" or "white slave" and did not use any other word to indicate that the

article is about prostitution; worse still, the indexer repeated the error of using merely the title words without assigning an index term for prostitution (AHL 24A:890, 24A:2433). This is an example of the worst kind of problem with searching online databases: the necessity to think up and search for all sorts of synonyms and related terms in order to achieve reasonably comprehensive recall (results).

The lack of assignment of accurate and useful index terms is due both to the design of the database's indexing scheme and to indexer error. Indexer error is sometimes the out and out failure to recognize the subject and assign the authorized index term according to the indexing rules of that database but also sometimes the result of the exercise of judgment in choosing the most appropriate index terms to assign. Despite legitimate differences of opinion about the relevance of a particular item to the study of women, however, there are abundant examples of how the lack of assignment of an index term for women inhibits effective retrieval of material that most of us would agree are obviously about women. In one issue of HA an entry for an article about a guide for young ladies and Queen Isabella's education is not indexed with *any* word denoting women (nor is it indexed with any term indicating the article is about education!); it would be retrieved in a search for women only by a free-text search using the word "ladies," "daughter," "maiden," "queen," or "princess" (HA 39A:1682). Another entry about 18th-century Spanish schools for girls run by women has no index term for women although the abstract incudes the words "women," "girls," and "damas" (HA 39A:2827). These obvious errors are the most distressing kind because there is no intrinsic or subtle reason for them to occur--just human failure.

The literature about specifically named, individual women poses several problems for both manual and online retrieval. One characteristic of the

literature, especially local history and pre-1980 writings, is that women are frequently referred to not by their own proper names but by reference to men, e.g., Mrs. Smith, Tom Smith's wife, Joe Blow's grandmother or aunt or paramour, etc. References to the women cannot be found by searching for them by their own names--when the names are known--or by the usual terms for women. A reference to a woman identifying her only by a man's name is less likely to be indexed than a reference using her own full name; it is also less likely to command the indexer's attention sufficiently to win a place in the index under a heading for women. When women index terms are not assigned to bibliographic entries, the online search must resort to tedious and error-prone free-text searching for words like mrs., she, her, and wife.

Material on the thousands of obscure and less well-known women who *are* named cannot be retrieved unless one already knows their proper names because most databases and bibliographies do not assign a general term for women to entries about one specific woman. For example, in HA an entry mentions a certain woman as a leader of a 16th-century Spanish religious movement, but only her proper name, María de Cazalla, and the pronoun "her" in the abstract indicate that the article is substantially about a woman; there is no index term for women or even for a women's group to which she belongs, such as nuns (HA 39A:2785). A perusal of entries about Spain in three issues of HA shows several instances of entries about individual women that have no women-related index term at all, and only a word like as sister, her, or santa in the title or abstract to alert the less experienced historian or the computer to the presence of material related to women. Worse yet are the cases with no clue whatsoever to the computer or in the printed index, as in an entry about the Poor Clares, which has no word for women or nuns anywhere (39A:2849, "convent" is in the abstract) or in an entry about the Inquisition trial of Isabel López

(39A:6624). The historian may recognize "Poor Clares" and "Isabel" as women *after* the abstract has been retrieved, but the names give no indication at all to the computer searching for women-related words requested by even the most diligent and thorough searcher.[18]

Being famous is no solution: a search for famous women also requires searching for the individual proper name of each one. Occasionally a group index term like queens or actresses may be assigned. The lack of assignment of a group term to entries about one example of the group was considered a major problem in a study of students' online searches for material on classes of women, for example Jewish women artists, when particular proper names were not known.[19]

The indexing of groups of women is a related type of problem. Names of groups of women, women's institutions, activities, and occupations are all important search terms. For example, in AHL entries about nurses in the Vietnam War are indexed nurses. This follows the standard and reasonable indexing principle of indexing at the level of specificity of the original document (i.e., nurses) and not also indexing the general level (women). The problems for the researcher using either printed or online bibliographies are two fold. One, the researcher must think of and use all the specific group terms that might be of interest, e.g., nurses, nuns, queens, actresses, midwives, etc. Second, in the indexes the assignment of group terms is too unpredictable to be relied upon, and as noted above, a group term is not usually assigned to one example of a class. Furthermore, an institution or organization may be the more central focus of a document and therefore given in the index rather than the women's group. For example, in HA entries about nuns are "nuns"; one entry is indexed "convents" (39A:2803); while another entry about a specific congregation of nuns is indexed only by the proper

names of the congregation and the order, not by nuns or convents (39A:2849). In another example, the occupational term wetnursing may be the appropriate index term instead of the group term wetnurses. Online searching can overcome some of the complications of searching indexes for institutions and group names of women by finding the words in the titles and abstracts as well as in the index terms, but some reasonably informative words must first of all be present in the bibliographic entry.

An even more complicated example of the lack of assignment of women index terms is for material on related subjects. Many subjects related to gender, sex, eroticism, the family, children, and education are of interest to the women's historian but do not include any obvious women term and cannot be retrieved even by free-text searching of all parts of the entry. For a work related to but not clearly about women, the indexer's interpretation of the relevance of a document to the subject of women may legitimately differ from a particular historian-researcher's interpretation of its relevance. It is not possible for any system or indexer to anticipate and index for the needs of every researcher.[20] So although we may agree that the burden lies with the individual researcher, it is important to recognize the issue of related subjects in women's history and the limitations of indexing systems in identifying them as relevant to women.

Throughout my analysis of the assignment of index terms, discussed above, I noticed a conflict that exists in all indexing systems, but a conflict that is particularly characteristic of indexing and retrieval of women's history, that is, the issue of the need for specificity versus the need for generalization; the need for precise subject terms versus the problem of having to search an unmanageable number of specific terms in order to

retrieve all material on the general subject of women. Some researchers need to locate every possible reference to women (perhaps within a certain time period and geographic area) while others, who seek only specific examples or categories of women, would be overwhelmed by such wholesale retrieval.

Women's studies specialists have called for greater precision in indexing women's topics by the addition of subdivisions or the use of precoordination of terms (e.g., women--sex discrimination should be further subdivided by credit, housing, employment, and education; rape should be further specified as date rape, marital rape, acquaintance rape, gang rape, etc.).[21] Online searching techniques can overcome the problems of scattering that such subdivisions and precoordination might cause in printed indexes, provided the index terms include, somewhere, the main subject word as well as the subheading or modifier (in these examples, the terms women--discrimination, rape). In indexes that use a less controlled vocabulary or where searches depend on additional text such as titles and abstracts, the searcher compensates for lack of thorough indexing and lack of standard terms by using numerous synonyms and related words.

In my own work I have been more aware of the need to find all the possible material about women, within certain geographic areas and time periods. There is a need for an indexing scheme that facilitates searches for general terms (woman, women, female, feminism) and more specific ones, whether they be group names (nuns, nurses, prostitutes), precoordinated terms (women of color, female rulers, lesbian mothers), or specific proper names.

In the ideal indexing world we might have a hierarchical or faceted scheme whereby every example of a category would be linked to its next most general term, and that term in turn linked to the next one up the hierarchy; an individual woman would be indexed by proper name, by a group name or names

to which she belonged, and to the most general term, women. Lateral linkages to related subjects such as feminism or gender studies would also be possible. Some existing online search systems, online library catalogs, and databases permit browsing the index terms, viewing related index terms, and even transferring among them, either automatically or selectively (Wilsonline, Melvyl catalog, databases with online thesauri). Another version of the ideal would employ artificial intelligence to match the researcher's stated query to all the appropriate words and phrases used in the database, but this is not a realistic possibility at the moment. Vocabulary aids and online thesauri have been developed that are of some help, but before considering them three more characteristics of online database searching in women's history may be noted.

An obvious requirement of the historian is that the for historical period covered by a publication be indexed. Only HA, AHL, and the art history database *Art Literature International* (RILA) on Dialog have thorough historical period indexing. HA and AHL have historical period indexes that give the dates in two ways: 1) the date expressed as exactly as possible based on the original document, using four-digit formats for years or two-digit statements of centuries (e.g., 1789, 1815-1830, 19c) and 2) the date translated into a standard format of decades and centuries.[22] In addition, free-text searching can locate phrases such as Renaissance, Golden Age, or Enlightenment used in titles, abstracts, or index terms. RILA indexes the years covered by a given document using their exact four digits, assigning terms for the century or centuries, and using words like medieval, Romanticism, and Victorian. The earlier volumes of the MLA database use the traditional chronologic divisions of national literatures, but that practice of having different chronologic divisions for different national literatures

was too problematical in online searching, so the indexing of historical periods was changed to uniform century statements (e.g., 1800-1899). Unfortunately MLA does not index every entry with a historical period term.[23] ***Religion Index***, too, assigns historical period terms to only selected entries, and not even to all the ones with a historical context. When they are assigned, the historical period terms may be traditional periods like 1789-1815, words like Enlightenment, or centuries in the form 1500-1599. ***Philosopher's Index*** assigns six historical period index terms very selectively, and one of them, "modern," is quite misleading to the historian in that it means 17-18th centuries.[24] Library catalogs use the traditional, standard--at least standard for some historians--divisions of the history of each country or region. This makes sense to the manual searcher of library catalogs and printed indexes, but as MLA discovered, is not practical for online searching; and the historian must adapt his traditional periodization to the form used in the electronic database.

Even with the thorough historical period indexing in the history databases, there is the problem of using it to best advantage. The most common error is for the historian to request dates too narrow and too specific for optimum retrieval, thereby excluding entries that are indeed relevant but are indexed with dates broader than the ones requested. Many article authors include discussion of the earlier background of the main subject and so the bibliographic entry for the article will be indexed with dates including the background period discussed. Furthermore, the computer does not make the same kind of logical connections that historians do; the computer searches only for an exact match with the characters (letters, numbers) it is given and does not know that the indexed dates 1788-1796 encompass the narrower range of 1789-1795, so a search on the dates 1789-1795 would not retrieve the item indexed

with the slightly broader range of 1788-1796. Or, to find all the material on absolutism in the 17th century, it is advisable to search for entries indexed 17th century OR 17th-18th centuries so as not to miss an entry with as much as 60-70% of its content devoted to the 17th century.[25] No doubt technical improvements to the indexing programs or the search system could obviate that need, but again, that is not a realistic expectation.

Another technical difficulty in searching online databases for material about women is the lack of updating older records in the database when new subject headings or index terms are added. Like all new research areas, the terminology for many women's topics is relatively new and the terms either do not appear as index terms or the terms are of recent vintage and are not used throughout the database, e.g., sisterhood, women of color, lesbians. Therefore one can retrieve records using a current index term but will miss records on the same subject that were already in the database when the new index term was introduced. So, the researcher must be alert to the need to seek out and use both earlier and later terms.

Finally, in addition to all the issues of vocabulary and indexing in any one database, researchers must deal with the shifts in the indexing vocabulary and index structure when they move from one online database or library catalog to another.

Developments in Vocabulary Aids

During the past 15 years there have been three major efforts to reform the indexing of women's materials and to help the user of existing indexes. Perhaps ironically, the attempts to develop a vocabulary for women's studies

has been more successful than the attempt to develop a thesaurus for the field of history. In the 1970s a critique of LCSHs and suggested revisions for subject headings relating to people and peoples were submitted by a committee of the American Library Association's Social Responsibilities Round Table Task Force on Women, which resulted in some significant changes. This group's work, continued by an extensive analysis of the Library of Congress's index terms and assignment policy, led to the publication in 1977 of ***On Equal Terms: A Thesaurus for Nonsexist Indexing and Cataloging.*** This manual includes a succinct presentation of the relationship of sex and language, a thorough discussion of principles for establishing subject headings (index terms) relating to people and peoples, and additional explanations throughout the thesaurus about the recommended terms and LCSH practice. This publication serves as a guide and resource tool for all indexing systems, even those not constructed like library catalogs. For the researcher seeking information from databases, bibliographies, and library catalogs that use the LCSHs (or an adaptation of them), the book ***Women in LC's Terms: A Thesaurus of Library of Congress Subject Headings Relating to Women*** records the actual practice of LC as of 1988. It can also be used as a source of terminology used in other databases.[26]

The third indexing vocabulary tool, ***A Women's Thesaurus*** (1987) is not based on LCSHs but is a thesaurus compiled from the existing thesauri of various fields, such as education and psychology, supplemented and revised by women's studies specialists.[27] This thesaurus was designed for use with electronic retrieval systems; following the principle that thesaurus design for online searching requires less hierarchically specific vocabularies and more emphasis on concept linking, it uses separate terms that can be post-coordinated, e. g., nurses and wages,[28] and keeps precoordinated terms like

gender-gap and female-sexual-slavery to a minimum. Despite the editor's claim that a major use of this thesaurus will be to provide a "standardized control language" and that it can be used as a controlled vocabulary, other comments in the book emphasize the need for more detailed vocabulary and for diversity and openness with regard to language and the structure of indexing. And other indexers see the work as a list of free text terms that will be useful when searching databases and indexes that lack a controlled vocabulary.[29] Its index terms having to do with history are appropriate to a general thesaurus but are not particularly adapted to the field of history. There are general terms like family history, intellectual history, social history, and women's history; then under women's history there are only seven related terms, the most relevant of which are "suffrage movements" and "women's rights" (p. 509). The thesaurus has the typical hierarchical display of terms with narrower and broader ones shown, a rotated keyword display, and subject group displays of alphabetical lists of all the terms related to each broad subject. In the subject section on History and Social Change there are terms such as alliances, antifeminism, beauty contests, classes, colonialism, dowry, peasants, pioneers, etc. But to see all the terms that I believe a historian might need, one has to consult the Law, Government and Public Policy and the Social Sciences and Culture lists as well as the History and Social Change one. The list of historical periods includes centuries (e.g., 11th century), plus decades for the 19th and 20th centuries (e.g., 1800-1809, 1930-1939), and names like antiquity, Enlightenment, future, New Deal, and, inexplicably, both Medieval Period and Middle Ages. The value of this thesaurus to the historian is not as a guide for organizing the index of a bibliography but as a suggestion of the terminology to use in identifying specific detailed subjects when searching databases or when supplying keywords for indexes.

On Equal Terms and *A Women's Thesaurus*, along with critics of the indexing of women's materials, aim at improving access to those materials by increasing the number and refining the terminology of index terms; but based on my own several studies of the indexing of women's history and women's studies, I see two sides to the question: the lack of sufficiently detailed index terms to retrieve precisely from the vast and diverse material available, but also, with the proliferation of index terms, the number and variety of terms that often must be used for reasonably comprehensive retrieval.

Some electronic databases have their own online thesauri. ERIC, the database for the field of education has a *Thesaurus of ERIC Descriptors* that can be used online. The broader, narrower, and related terms for any one index term (descriptor) can be shown upon request of the system. In other words, all the cross references can be seen if desired. The terms themselves, however, designed for the field of education, have only a limited usefulness to the historian. The same is true of *Psychological Abstracts*, called *PsycInfo* online, which also has its thesaurus available online along with the bibliographical database.

There have been attempts at thesauri in fields related to history, the most successful of which is the *Art and Architecture Thesaurus*--although developed, it is not in wide use in its field. The MLA project is apparently stalled, if not dead. And the project for a history thesaurus did not get off the ground despite valliant efforts by the late Warren F. Kuehl.[30]

IV. CONCLUSION

Despite the improved access to material about women due to better developed indexing schemes and a heightened awareness on the part of indexers, there are still considerable problems in locating works in women's history. Some of the problems are not solvable: The confusion between women and feminism is too longstanding and too complicated to be sorted out; the abolition of sexist and stereotyped language is a two-edged sword--it can hamper retrieval of older data.

Some of the difficulties of retrieval of information about women could be solved by more sophisticated and more complex indexing schemes, or even by thesaurus-based, controlled-vocabulary indexes: e.g., the identification of ideological viewpoints; the distinction between women as participants and women portrayed; and the connection of women to related topics such as sex, education, social welfare, or violence.

The adoption of some fairly simple indexing policies by database producers could overcome the problems of the lack of identification of individuals and groups of women.

The dilemma of whether to develop a controlled vocabulary or to use natural language indexing is by no means peculiar to the field of women's history or women's studies, but it is a very important one. Presently the major bibliographic databases in the humanities (AHL, HA, MLA, *Religion Index*, AHCI) are characterized by an excessive number of index terms for women's topics. Even where the vocabulary is considered controlled or semi-controlled, there are numerous variations of similar terms and terms so specific--making such fine distinctions--that indexers cannot assign them accurately and consistently, and readers (i.e., historians) cannot interpret

them accurately.[31]

On the one hand natural language indexing creates a horrendous multiplicity of terms and variations on the terms for identical things--a chaos, if you will, and the possibility of the user being held hostage to an author's idiosyncratic or faddish language. On the other hand, controlled vocabularies (true thesauri, not mere lists of subject terms) require enormous efforts and amounts of money, first to develop and then to maintain them. Furthermore, they are not necessarily welcomed and used by the scholars, institutions, and publishers for whom they are devised.

There is perhaps a paradox in the question of a thesaurus for women's studies. In the field of history, which is an old discipline with an established vocabulary for geographical areas, periods, events, movements, etc., standardization and thesaurus development has been difficult or impossible. Entrenched scholars insist on their own preferred terminology and are fairly unwilling to accept any standardization that differs from their own preferences. In *women's* history and *women's studies*, which have the difficulties of a new field of study, namely new and rapidly changing terminology, thesaurus construction has succeeded. Perhaps because it is a new field, less encumbered with traditional, entrenched interests; perhaps because of a sense of mission or of community and cooperation among its scholars, along with the successful propagation of the philosophy that "standardization does not have to mean quashing diversity . . ." and that building a consensus is "an opening up, not a restricting of the language."[32] At any rate, the fact is that the trend in database indexing is toward free, natural language. It is worth noting that among the humanities databases, the initially controlled-vocabulary schemes quickly became a mixture to terms from a controlled subject heading list and natural-language words and phrases.

This is true of the ***MLA International Bibliography*** and ***Art Literature International*** RILA.[33] The indexing scheme of HA and AHL was originally designed as just such a hybrid, but there, too, the trend is toward more natural language and less control.[34]

The consequence, or at least a concomitant trend, is that the responsibility for effective searching of online databases is put more and more on the user--the historian or information analyst--rather than on the database or information retrieval system, and at a time when historians have not yet learned how to use the existing databases.

At present one has to know the indexing schemes of various databases, and know them very well in order to do effective searches. Usually, especially in women's history, one has to cast the net widely and accept a number of irrelevant entries in order to get reasonably comprehensive retrieval. There are simplified systems and interfaces that make searching easier; they do not make it more effective. And the sophisticated, "state of the art" systems referred to by other speakers at this conference are not available for online database searching.

I hope that be becoming aware of the characteristics of online information retrieval that I have outlined here, scholars of women history and, by extension, scholars of other areas of history, will be better able to exploit electronic bibliographic databases--because there is no fairy godmother of bibliography who will create a perfect system, nor a San Isidro who will get the angels to do their work for them.[35]

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NOTES

1. Joyce Duncan Falk, "Humanities," in ***Women Online: Research in Women's Studies Using Online Databases***, ed. by Steven D. Atkinson and Judith Hudson (Binghamton, NY: Haworth, 1990): 7-72.

2. Such a design has been discussed by Lawrence J. McCrank, "Knowledge Engineering: The Interplay between Information and Historical Sciences," paper presented at the Seventeenth International Congress of Historical Sciences, Madrid, 26 August-2 September 1990; and in ***Bibliographic Services of the American Historical Association . . . : A Report of the ABH/AHA Task Force . . .***, Spring 1989, ERIC no. ED312200.

3. On the variety of databases and issues associated with the electronic storage and retrieval of information, see Joyce Duncan Falk, "Databases for Historical Research: Overview and Implications," ***American History: A Bibliographic Review*** 4 (1988): 1-13.

4. Eleanor S. Riemer and John C. Fout, "Women's History: Recent Journal Articles," ***Trends in History*** 1 (Spring-Summer 1979) 3-22.

5. ***American historical Review*** 89, no. 3 (June 1984): 593-732; ibid., 95, no. 4 (October 1990): 983-1114; and e.g., Joan W. Scott, "Gender: A Useful Category of Historical Analysis," ibid. 91, no. 5 (December 1986): 1053-1075. ***Index to French Historical Studies*** vols. 1-14, 1958-1986; ***French Historical Studies*** 16, no. 1 (Spring 1989): 1-151. Olwen Hufton noted French and British examples in "Women in History I: Early Modern Europe," ***Past and Present*** no. 101 (November 1983): 127.

6. Ellen Gay Detlefsen, "Issues of Access to Information about Women," ***Special Collections*** 3 (Spring-Summer 1986): 167, basing her evaluation on only six journal titles and six indexing services. The indexing of women's studies and feminist journals is not as limited as claired; e.g., the author did not consider HA-AHL or MLA, and her list of "major" journals did not include ***Women's Studies: An Interdisciplinary Journal*** (U.K.), ***Women's Studies International Forum***, or ***Frontiers***. My 1989 analysis of 27 titles in feminist and women's studies, including discipline specific ones like ***Women & History***, ***Women & Literature***, and ***Women's Art Journal***, showed that HA-AHL selectively indexes 10 of the 27 titles; MLA indexes 8; ***Arts & Humanities Citation Index*** indexes 7 (Falk, "Humanities," in ***Women Online***, p. 22). Following far behind in indexing the shorter list of 17 titles are the H. W. Wilson Company's ***Social Sciences Index*** with 3 and ***Humanities Index*** with 2, and ***Social Sciences Citation Index*** with 4 of the 17. These three indexes are also online.

7. Sarah M. Pritchard, "Trends in Computer-based Resources for Women's Studies," ***Feminist Teacher*** 3 (Fall-Winter 1988): 10; Alan Pritchard and

David Doughan, "Access to the Literature on Women: The Fawcett Library and BiblioFem," ***A.L.*** [Assistant Librarian?] (February 1979): 22-36.

5. For brief, critical descriptions of some of these see ***A Consumer's Guide to the Current Bibliography of Historical Literature*** (Chicago: Reference and Adult Services Division, American Library Association, 1988). Also of use is the discussion of current bibliographies and guides in "A Guide to Historical Literature and Other Issues in History Bibliography" prepared by an ad hoc committee of the Association for the Bibliography of History, April 1986, for the Research Division of the American Historical Association, ERIC no. ED 305323.

9. Falk, "Databases for Historical Research," p. 2-4 (note 3 above).

10. Pritchard, "Trends in Computer-based Resources," 10 (note 5 above). The lack of bibliographic control and lack of indexing of large microform sets is cited as a persistent obstacle to their use by Susan A. Cady, "The Electronic Revolution in Libraries: Microfilm Déjà Vu?," ***College and Research Libraries*** 51 (July 1990): 374-386.

11. Andrea Timberlake et al., eds., ***Women of Color and Southern Women: A Bibliography of Social Science Research, 1975 to 1988*** (Memphis, TN: Center for Research on Women, Memphis State University, 1988). Barbara Kanner, ***Women in English Social History, 1800-1914: A Guide to Research***, 3 vols. (New York, Garland, 1987-90).

12. Joyce Duncan Falk, "The New Technology for Research in European Women's History: 'Online' Bibliographies," ***Signs: Journal of Women in Culture and Society*** 9 (Fall, 1983): 120-133.

13. Falk, "Humanities," in ***Women Online*** (note 1 above).

14. Ibid., p. 45.

15. Joan K. Marshall, comp., ***On Equal Terms: A Thesaurus for Non-sexist Indexing and Cataloging*** (New York: Neal-Schuman, 1977): 8, 42.

16. Joyce Duncan Falk, "Researching Images of Women in Popular Culture and Art: Traditional and Computerized Tools," paper presented at the Western Association of Women Historians Annual Conference, 21-23 May 1982: pp. 16-19.

17. Jacquelyn Marie, "Women's Studies in the Melvyl Catalog," ***DLA Bulletin*** 10, no. 1 (Spring 1990): 18-20.

18. For examples see HA 39A, especially abstracts 2803, 2817, 2849, 6608, 6616, 6624, 6633, 6648, 6653, 6661, 10178.

19. Suzanne Hildenbrand, "Women's Studies Online: Promoting Visibility," ***RQ*** 26 (Fall 1986): 68.

20. A good example of how indexing does not match the needs of the researcher and, therefore, how important free-text searching of abstracts is for locating material about women is cited ibid., p. 69.

21. Ishbel Lochhead, "Bibliographic Control of Feminist Literature," ***Catalogue & Index*** 76-77 (Spring-Summer 1985): 12. Detlefsen, "Issues of Access," p. 166 (note 6 above). Hildenbrand, "Women's Studies Online," p. 66 (note 19 above).

22. Joyce Duncan Falk and Susan K. Kinnell, ***Searching America: History and Life (AHL) and Historical Abstracts (HA) on Dialog*** (Santa Barbara, CA: ABC-Clio, 1987): 39-50.

23. Joyce Duncan Falk, "Database Characteristics and Search Problems in the Humanities," abstract, ***Online '85 Conference Proceedings*** (Weston, CT: Online, Inc., 1985): 102-106.

24. On ***Philosopher's Index*** and ***Religion Index*** see Falk, "Humanities," in ***Women Online***, p. 44, 47 (note 1 above).

25. Falk and Kinnell, ***Searching***, p. 41-44 (note 22 above). Joyce Duncan Falk, "Searching by Historical Period in the History Databases," in ***National Online Meeting Proceedings--1981*** (Medford, NJ: Learned Information, 1981): 199-205.

26. Marshall, ***On Equal Terms*** (note 15 above). Ruth Dickstein, Victoria Mills, and Ellen J. Waite, ***Women in LC's Terms: A Thesaurus of Library of Congress Subject Headings Relating to Women*** (Phoenix: Oryx Press, 1988).

27. Mary Ellen S. Capek, ed., ***A Women's Thesaurus: An Index of Language Used to Describe and Locate Information By and About Women*** (New York: Harper and Row, 1987).

28. Susanne Ornager and Mogens Johne, "Changes in Thesaurus Construction Caused by the Use of Boolean Searching," in ***Proceedings of the 7th International Online Information Meeting*** (Medford, NJ: Learned Information, 1983): 167-173.

29. Capek, ***A Women's Thesaurus***, viii, xiii-xviii (note 27 above). Dickstein, ***Women in LC's Terms***, vii (note 26 above).

30. At the session "A Thesaurus for History? Considerations & Issues," Association for the Bibliography of History-American Historical Association Annual Meeting, New York, 27-30 December 1985, Warren F. Kuehl presented the case for a history thesaurus and Lawrence J. McCrank gave a thorough and perceptive review of the obstacles, including political ones, to such a thesaurus.

31. Falk, "Humanities," in ***Women Online***, p. 43, 47-48 (note 1 above).

32. Capek, ***A Women's Thesaurus***, p. xvii (note 27 above).

33. Falk, "Humanities," in ***Women Online***, p.41, 54 (note 1 above).

34. Joyce Duncan Falk, "Controlled and Free Vocabulary Indexing of the ABC-Clio Databases in History," ***Data Bases in the Humanities and Social Sciences*** (Amsterdam: North Holland, 1980): 309-313.

35. San Isidro is the patron saint of Madrid whose field was plowed by the angels.